Whitney Bros Co

New Hampshire Manufacturing Extension Partnership

Whitney Brothers Use Lean Tools to Build the Future

Client Profile:
Whitney Brothers has been producing educational toys and furniture used in schools, day care centers and homes since 1904. Their New England-made products are constructed of the finest materials with a focus on strength and safety and designed to last for generations. These are sold by leading dealers through catalogs and showrooms across the country. Whitney Brothers employs 31 people at its facility in Keene, New Hampshire.

Situation:
Whitney Brothers had heard of Lean, and the New Hampshire Manufacturing Extension Partnership (NH MEP), a NIST MEP network affiliate, had been recommended by several area companies, but the company was still 'on the fence' about getting involved. When a potential client stated that he only works with vendors who practice Lean or are seriously involved in their Lean Implementation, Whitney Brothers invited NH MEP and Project Manager Linda Ellis to assist with their Lean implementation.

Solution:
NH MEP provided Whitney Brothers with Le102 Basic Lean Training for the job shop manufacturing environment which introduced key Lean terms and tools for company employees. After the Lean introduction, Ellis taught cross functional employee teams how to do Value Stream Mapping (VSM), an exercise in which a process is followed and mapped from start to finish in order to identify areas of waste. Using the VSM information, teams were taught to run Kaizen (to take apart and put together in a better way) events. "Linda taught us how to do Kaizens on our own with the ten-step process to remove the identified waste from our processes. She helped us through the first few and then told us that the next time we could do it on our own. Now we can apply the techniques ourselves," said Michael Jablonski, Whitney Brothers' General Manager.
NH MEP led a Kaizen in the Finishing Department where things were bogged down by large amounts of wasted motion. Pallets of product that were waiting for finish used to be stored in a rectangular area and would be stacked one in front of another as additional work came in, thus blocking the work behind. Much time was spent moving pallets out of the way and rearranging them to get to what was needed in the back. The old system had two finishing machines working independently. Pallets of parts were dug out of storage to go to machine number 1 where edges of the material could be finished and then the pallet would be moved back into storage. When it was time to finish the front and back of the pieces, it required digging the pallet out of storage again to do the finishing and then returning it to storage to await transport into the next department. The process to finish each pallet of work took four days. With the new system, pallets are dropped on roller lanes for travel to the Finish Department and machine number 1. After moving through machine number 1, parts travel in stacks to machine number 2. They then flow into the next department. The lanes keep the work in the correct sequence and allow regulation of work in process (WIP). When the lanes are full, it signals the previous department to stop production. This eliminates excess handling and allows parts to flow

through finishing in one day as opposed to four. The roller lane system also reduced material travel distance in the department from 8,000 feet to less than 1,000 feet. As a result of NH MEP's assistance, Whitney Brothers has increased efficiency and profitability.
Whitney Brothers again contacted NH MEP to help with a situation the company was having resolving customer complaints. Several departments addressed a number of areas and categorized the issues during the process. "With input from the different departments, the team developed a customer complaint process," Ellis. "The goal was to have a process that was robust but not cumbersome and ultimately would reduce customer complaints and improve customer satisfaction. The new process incorporates the business needs, and they have noticed that the number of complaints has fallen as well."

Results:
* Increased work in process by 35 percent.
* Increased profitability by 26 percent per employee.
* Saved $200 in shipping charges.

Testimonial:
"Having a potential customer suggest that they needed to 'do Lean' was certainly unusual. While Whitney Brothers did ultimately end up doing business with him, even more importantly the Lean tools have helped them maintain high quality and on time delivery for all their clients and will help position the company for new business as well."

Michael Jablonski, General Manager